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| APPLICATION NO.         | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |  |  |
|-------------------------|-------------|-----------------------|---------------------|------------------|--|--|
| 10/692,168              | 10/23/2003  | Nathan Raymond Hughes | AUS920030630US1     | 1935             |  |  |
| 35525                   | 7590        | 09/18/2008            | EXAMINER            |                  |  |  |
| IBM CORP (YA)           |             |                       | PAUL, DISLER        |                  |  |  |
| C/O YEE & ASSOCIATES PC |             |                       | ART UNIT            |                  |  |  |
| P.O. BOX 802333         |             |                       | PAPER NUMBER        |                  |  |  |
| DALLAS, TX 75380        |             |                       | 2615                |                  |  |  |
| NOTIFICATION DATE       |             | DELIVERY MODE         |                     |                  |  |  |
| 09/18/2008              |             | ELECTRONIC            |                     |                  |  |  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

[ptonotifs@yeeiplaw.com](mailto:ptonotifs@yeeiplaw.com)

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/692,168             | HUGHES ET AL.       |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | DISLER PAUL            | 2615                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 16 July 2008.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-4,6,10,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4,6,10,22 and 23 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ .  | 6) <input type="checkbox"/> Other: _____ .                        |

## DETAILED ACTION

### ***Response to Amendment***

The applicant's amended claims wherein "periodically receiving input parameter and each input parameter affect environmental noise" has been considered over new ground rejection.

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-2, 6, 10, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sapashe et al. (US 2005/0059369) and Cranfill et al. (7,242,784).

Re claim 1, Sapashe et al. disclose a method for intelligent audio output control, the method comprising: periodically receiving values for each input parameters of a set of parameters, wherein each input parameters affects environmental noise (fig.2 wt (214)/external environment noise); and receiving stored historical data, wherein the stored historical data comprises stored values for the set of input parameters and a stored audio output parameter value associated with the stored values for each input of the set of input parameters, wherein the stored historical data comprises a plurality of data values, wherein each data value comprising a stored value for each input parameter for the set of input parameters and the audio output parameter value associated with the stored value for each input parameter of the set of input parameters; responsive to a value for one or more of the periodically received values for each input parameter changing, predicting a value for an audio output parameter of an audio system based on the received values for each input parameter of the set of input parameters and the stored historical data and adjusting the audio output parameter for the audio system using the predicted value for the audio output parameter (fig.1-2; par[0012-0013,0008,0010]/output based on input and stored historical data and sample periodically).

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While, Sapasha et al. disclose of the above with input data corresponding with output data, However, He fail to disclose of the specific wherein the step of predicting a value for an audio output parameter comprises one of a receiving data points and performing statistical analysis on the plurality of data points to predict the value for the audio output parameter; and identifying a closest data point within the plurality of data points and setting the predicted value for the audio output parameter to an audio output parameter value of the closest data point. But, Cranfill disclose of the dynamic control gain signal wherein the step of predicting a value for an audio output parameter comprises one of the receiving data points and performing statistical analysis on the plurality of data points to predict the value for the audio output parameter; and identifying a closest data point within the plurality of data points and setting the predicted value for the audio output parameter to an audio output parameter value of the closest data point (fig.1 wt (memory), fig.4-5, col.3 line 29-40, col.5 line 35-65/statistical interpolation with linear for input and output data point with closest data points) for the purpose of dynamically improving the audio gain so low input level could be heard. Thus, taking the combined teaching of Sapashe et al. and Cranfill as a whole, it would have been obvious for one of the ordinary skill in the art to have modify Sapashe et al. by incorporating the wherein the step of predicting a value for an audio output parameter comprises one of the receiving data points and performing statistical analysis on the plurality of data points to

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predict the value for the audio output parameter; and identifying a closest data point within the plurality of data points and setting the predicted value for the audio output parameter to an audio output parameter value of the closest data point for the purpose of dynamically improving the audio gain so low input level could be heard.

Re claim 2, the method of claim 1, wherein the step of periodically receiving values for each of a set of input parameters includes periodically receiving values from a sensor ("fig.2 (214)"), however, the combined teaching of teaching of Sapashe et al. and Cranfill as a whole, fail to disclose of the specific wherein having a plurality of sensors. But, official notice is taken the concept of having a plurality of sensors is well known in the art. Thus, it would have been obvious for one of the ordinary skill in the art to have modify the combined teaching of teaching of Sapashe et al. and Cranfill as a whole, with such having a plurality of sensors for receiving a variation input location of parameters.

Re claim 6, the method of claim 1 with the statistical analysis being performed, wherein the statistical analysis includes at least one of performing linear regression analysis ("cranfill, fig.4-5, col.4 line 62-65").

Re claim 10, the method of claim 1, wherein the audio output parameter is one of volume level (fig.1-2/to output volume level).

Re claim 23, the combined teaching of Sapashe et al. and Cranfill as a whole, the method of claim 1, with the user comprises a user wherein a stored audio output level parameter is set the user (see claim 1).

But, the combined teaching of Sapashe et al. and Cranfill as a whole, fail to disclose of the specific having a plurality of users and with output parameters. But, official notice is taken the concept of having a plurality of users and with output parameters is simply the inventor's preference. Thus it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Sapashe et al. and Cranfill as a whole, with such concept of having a plurality of users and with output parameters for customizing the generating of the instantaneous output level for respective users during user.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sapashe et al. (US 2005/0059369) and Cranfill et al. (7,242,784) and further in view of Henderson et al. (US 2004/0042624 A1).

Re claim 3, the method of claim 1 with the input parameters, but the combined teaching of Sapashe et al. and Cranfill as a whole, fail

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to disclose of the specific wherein the set of input parameters includes at least one of vehicle speed, whether the vehicle window is opened or closed or convertible top is up or down. But, Henderson et al. disclose of a sound system wherein such having input parameters includes at least one of vehicle speed, whether the vehicle window is opened or closed or convertible top is up or down (par [0006, 0009]) for purpose of providing an enhanced of audio quality output dependent on the environmental condition of the car. Thus, taking the combined teaching of Sapashe et al. and Cranfill and Henderson et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modify the combined teaching of Sapashe et al. and Cranfill as a whole, with the having input parameters includes at least one of vehicle speed, whether the vehicle window is opened or closed or convertible top is up or down for purpose of providing an enhanced of audio quality output dependent on the environmental condition of the car.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sapashe et al. (US 2005/0059369) and Cranfill et al. (7,242,784) and further in view of kitamura et al. (US 6,704,421 B1).

Re claim 4, the method of claim 1 with the data input and sensors (fig.1-2). But, the combined teaching of Sapashe et al. and Cranfill as a whole, fail to disclose of the limitation wherein the set of

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input parameters includes audio type, wherein the audio type comprise one of a song type, talking , and a commercial. However, kitamura et al. disclose of a sound output system wherein input parameters includes audio type, wherein the audio type comprise one of a song type, talking, and a commercial (col.3 line 1-10; col.7 line 55-67) for purpose of providing an equalization which accommodate variation of audio formats. Thus, taking the combined teaching of Sapashe et al. and Cranfill and Kitamura et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modify the combined teaching of Sapashe et al. and Cranfill as a whole, wherein input parameters includes audio type, wherein the audio type comprise one of a song type, talking, and a commercial for purpose of providing an equalization which accommodate variation of audio formats.

6. Claims 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sapashe et al. (US 2005/0059369) and Cranfill et al. (7,242,784) and further in view of Banno (6,760,453 B1).

7. Re claim 22, the combined teaching of Sapashe et al. and Cranfill as a whole, disclose of the method of claim 1 and wherein periodically receiving values for each input parameter of a set of input parameter. But, the combined teaching of Sapashe et al. and Cranfill as a whole, fail to disclose of the specific wherein input comprises periodically

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receiving values for each input every second. But, Banno disclose of a system of sampling input signal wherein such having the specific wherein comprises periodically receiving values for each input every second (fig.1,3, col.8 line 20-29) for purpose of receiving instantaneous output level signal dependent on the input level detecting. thus, taking the combined teaching of Sapashe et al. and Cranfill and Banno as a whole, it would have been obvious for one of the ordinary skill in the art to have modify the combined teaching of Sapashe et al. and Cranfill as a whole, with the specific wherein comprises periodically receiving values for each input every second for purpose of receiving instantaneous output level signal dependent on the input level detecting.

***Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./  
Examiner, Art Unit 2615

/Vivian Chin/  
Supervisory Patent Examiner, Art Unit 2615